

FIS920010074  
I26-0016-D

### REMARKS

Claims 1-7 and 9 were pending in the present application.

Claims 1, and 9 have been amended and Claim 5 has been cancelled, leaving Claims 1-4, 6-7, and 9 for further consideration in the present amendment. The feature of Claim 5 has been included in Claim 1. Support for the additional amendments can be found in Applicants specification at paragraphs [0002]-[0007], as well as, the examples.

Reconsideration and allowance of the claims is respectfully requested in view of the following remarks.

#### Claim Rejections Under 35 U.S.C. § 102

A. Claims 1-7 and 9 stand rejected under 35 U.S.C. §102(b), as allegedly anticipated by U.S. Patent No. 4,541,168 to Gaile et al. (hereafter "*Gaile*"). Applicants respectfully traverse.

To anticipate a claim under 35 U.S.C. §102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988).

*Gaile* fails to anticipate Claim 1 because there is no disclosure of the feature of "coating the semiconductor material surface containing dopant ions with solution consisting of (or consisting essentially as in Claim 9) of a non-aqueous organic solvent selected from the group consisting of ketones, polyhydric alcohols, cyclic ethers and esters, wherein coating the semiconductor material surface occurs prior to formation of a barrier layer on the surface" as claimed by Applicants. *Gaile does not* disclose a process of cleaning a semiconductor material surface of a partially manufactured integrated circuit subsequent to implantation of dopant ions into the surface and prior to any other semiconductor manufacturing process. Rather, *Gaile* discloses a multi-step process for forming metal

FIS920010074  
I26-0016-D

contact studs. Subsequent to ion implantation, it appears that *Gaile* passivates an ion implanted structure with a passivation layer (see *Gaile*, Col. 3, ll. 56-58).

In view of the foregoing, the rejection is respectfully requested to be withdrawn.

B. Claims 1-7 and 9 stand rejected under 35 U.S.C. §102(b), as allegedly being anticipated by U.S. Patent No. 3,599,323 to Saxena et al. (hereafter "*Saxena*"). Applicants respectfully traverse.

*Saxena* is directed to fabrication of a Schottky barrier diode. The process includes growing an epitaxial P-type on a heavily doped P<sup>++</sup> silicon wafer. The wafer is then oxidized to form a passivation layer and then using standard lithographic techniques, chromium is selectively deposited by vapor deposition. Prior to forming the chromium-silicon interface, the substrate is first cleaned with trichloroethylene, acetone and deionized water. *Saxena* fails to disclose actively ion implanting dopant ions into selected areas of a semiconductor material. In other words, there is no disclosure of removing dopant ions after ion implanting since *Saxena* discloses growing an epitaxial P type layer onto a heavily doped P<sup>++</sup> silicon wafer. This is not the same as ion implanting selected areas of the semiconductor material. As noted by Applicants, the claimed process can be implemented to remove dopant ions that can be present at the surface after selective ion implantation. For example, the process can be used to remove arsenic ions in the collar region of a trench capacitor.

In view of the foregoing, the rejection is requested to be withdrawn.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.


FIS920010074  
I26-0016-D

If there are any additional charges with respect to this Amendment or otherwise,  
please charge them to Deposit Account No. 09-0458 maintained by Assignee.

Respectfully submitted,

CANTOR COLBURN LLP  
Applicants' Attorneys

By:

  
Peter R. Hager  
Registration No. 42,618

Date: June 14, 2006  
Customer No.: 29371  
Telephone: (404) 607-9991